

Four-Wheel Drive Systems - Raptor - Overview

2-Speed Torque On Demand with 4HI-LOC

2-Speed Torque On Demand with 4HI-LOC system consists of the following components:

- 4X4 Switch Module (Located in the instrument panel)
- TCCM (located near the passenger kick panel)
- IWE solenoid
- IWEs
- 4WD mode indicators and messages in the IPC message center
- Transfer case assembly
- Wheel speed signals from the ABS via HS-CAN

Vehicles equipped with the 2-speed torque-on-demand with 4HI-LOC system allow the operator to choose between 2WD and 3 different 4WD modes. The transfer case is shifted electronically based on the 4X4 Switch Module position. Under normal driving conditions, the unit is in 2WD (2H), but when desired, the operator may shift into 4WD AUTO (4A), 4WD high (4H), or 4WD low (4L). When shifting into or out of 4WD (4L) range, the TCCM requires that the vehicle speed is less than 5 km/h (3 mph) and the transmission is in NEUTRAL.

The transfer case is equipped with an electronically controlled clutch which is located inside the transfer case. The clutch provides torque to the front driveline in (4A) mode only.